REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

I. DISPOSITION OF THE CLAIMS

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Claims 2, 11, and 21-27 are requested to be cancelled.

Claims 1, 5-6, 10, 12-13, 15-16, and 28 are currently being amended.

Claims 29-35 are being added.

No new matter has been added.

After amending the claims as set forth above, claims 1, 3-10, 12-20, and 28-35 are now pending in this application.

II. CLAIM OBJECTIONS

Applicants have obviated by amendment the objections to the claims.

Specifically, Applicants have replaced the occurrences of "ufc/ml" with "cfu/ml" and have replaced the occurrences of "." with "x".

III. INDEFINITENESS REJECTION

Applicants have obviated this ground of rejection by amendment.

Specifically, Applicants have eliminated the occurrences of "advantageously ..." and have moved the corresponding subject matter to new claims 29-35. Applicants have eliminated the occurrence of "and/or" in claim 6.

IV. OBVIOUSNESS-TYPE DOUBLE PATENTING (ODP)

The claims stand rejected for obviousness-type double patenting (ODP) over application 10/590,507 (Applicants believe the Office Action refers in error to "10/509507" at page 11, line 4 from the bottom).

Applicants request that this rejection be held in abeyance pending indication of allowable subject matter.

V. NON-OBVIOUSNESS

The claims stand rejected as allegedly obvious over Hayakawa et al., Journal of Fermentation and Bioengineering, 1990, vol. 70, no. 6, pp. 404-408 ("Hayakawa"), Maus et al., Journal of Applied Microbiology, 2003, 95, pp. 146-154 ("Maus"), and various additional references.

The Office relies primarily on the combination of Hayakawa and Maus for the obviousness rejections of all claims, with various additional references cited against specific claims.

Applicants submit that the process of claim 1 yields a liquid concentrate of adapted and viable lactic acid bacteria for use in foodstuffs. It is thus an essential feature of the claimed subject-matter that the lactic acid bacteria contained into the obtained liquid concentrate are highly active and viable. In other words, the present invention provides all the essential steps and features for achieving optimal activity and viability of lactic acid bacteria after concentration and during the final foodstuff shelf-life. Actually, this is made possible by combining bacterial concentration using tangential filtration, with bacterial adaptation as defined in the claims and as described in the application.

Hayakawa relates to high density culture of *Lactobacillus casei* by tangential filtration. However, Hayakawa does not disclose or suggest to adapt bacteria.

Maus discloses apply stressful conditions during culture production of *Bifidobacterium longum* and *B. lactis* so as to enhance subsequent cold-and acidic pH-tolerance thereof. The stressful conditions used in Maus are described as "sub-lethal stress"

(see the abstract). However, Maus does not describe nor suggest to concentrate bacteria using tangential filtration.

Nowhere in the prior art it is proposed to combine bacterial adaptation and bacterial concentration by tangential filtration. *A fortiori* the prior art never contemplates bacterial adaptation as an appropriate preliminary treatment to subsequent bacterial concentration of a liquid medium.

The Manual of Patent Examining Procedure instructs examiners that "prior art can be modified or combined to reject claims as *prima facie* obvious as long as there is a reasonable expectation of success". See M.P.E.P. § 2143.02.I., citing In re Merck & Co., 800 F.2d 1091 (Fed. Cir. 1986).

Here, such "reasonable expectation of success" is lacking and an obviousness rejection would be inappropriate. In support, Applicants have submitted herewith via Information Disclosure Statement (IDS) the technical reference Reid et al., J. Appl. Bacteriol., 41: 321-324, 1974 ("Reid").

Reid discloses that, although tangential filtration appears to be useful for harvesting *Corynebacterium parvum, "further work is needed to determine whether tangential flow filtration is applicable to the processing* of *other bacterial species"* (see page 323, lines 6-8 from bottom) and thus of lactic acid bacteria as claimed in claim 1.

Thus, a skilled artisan would not have had a reasonable expectation of success with the claimed bacteria, which differ from *Corynebacterium parvum.*

Further, the prior art teaches away from the combination. In support of this assertion, Applicants refer to the references Reid and Crespo et al., Chemical Engineering Science, 47: 205-214, 1992 ("Crespo"; submitted in the prior IDS of record).

It was well-known at the priority date as shown in Crespo and Reid that tangential filtration, although being useful for concentrating certain bacterial species, induces substantial loss of cell viability and activity. Indeed, tangential filtration causes mechanical stresses that were at that time considered to impair cell viability.

In fact, in Crespo, the authors alert to possible "severe cell deactivation" (page 208, left column) and insist upon the fact that we "cannot neglect the loss of cell viability and activity during the fermentation process" (page 213, left column).

So, the person skilled in the art willing to obtain liquid concentrate of lactic acid bacteria having optimal cell viability and activity would not only have considered tangential filtration as inappropriate for concentrating bacteria, but also he/she would never have combined such a concentration technique to bacterial adaptation under stressful "sub-lethal" conditions as disclosed in Maus.

Actually, the person skilled in the art would rather have looked for less stressful conditions as possible for treating lactic acid bacteria and he/she would definitely have ruled out the possibility of combining adaptation which would cause stresses to the cells, with tangential filtration which would cause more stresses to the cells.

For all the reasons presented above, Applicants submit that the obviousness rejection should be withdrawn.

CONCLUSION

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date 19-Jul-2010

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